

[Available Issues](#) | [Japanese](#)>> [Publisher Site](#)
 Author: [ADVANCED](#) | Volume Page
 Keyword: |

[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1881-3984

PRINT ISSN : 1344-6606

Food Science and Technology Research

Vol. 14 (2008) , No. 6 pp.541


[\[PDF \(869K\)\]](#) [\[References\]](#)

Effects of Head Size on the Mechanical Properties of Shredded Cabbage

[Kaoru KOHYAMA](#)¹⁾, [Yuko TAKEZAWA](#)¹⁾ and [Atsushi TAKADA](#)²⁾
1) *National Food Research Institute*2) *Miura Peninsula Region Office of Kanagawa Agricultural Technology Center*

(Received: July 8, 2008)

(Accepted: September 4, 2008)

The mechanical properties of cabbages (var. T-520) of various head sizes were evaluated by carrying out a tensile test and a puncture test on fifth leaves. Fracture properties of a strap-shaped specimen that was pulled perpendicular to a secondary vein well correlated to the puncture properties of the mesophyll part. The fracture load, fracture stress, and elastic modulus obtained in parallel tension to the fiber were significantly greater than those for the perpendicular direction. The mechanical properties of the fifth leaves of cabbages were not influenced by head size, although they varied within a leaf and among individual leaves. This observation suggests that head size of cabbages is not important to determine the quality of shredded cabbage; thus, large size is more suitable for the industrial production of shredded cabbage.

Keywords: [mechanical properties](#), [Winter-type cabbage](#), [head size](#), [shredded cabbage](#)

[\[PDF \(869K\)\]](#) [\[References\]](#)
Download Meta of Article [\[Help\]](#)[RIS](#)

To cite this article:

Effects of Head Size on the Mechanical Properties of Shredded Cabbage Kaoru KOHYAMA, Yuko TAKEZAWA and Atsushi TAKADA, *FSTR*. Vol. **14**, 541. (2008) .

doi:10.3136/fstr.14.541

JOI JST.JSTAGE/fstr/14.541

Copyright (c) 2009 by Japanese Society for Food Science and Technology



[Japan Science and Technology Information Aggregator, Electronic](#)

